Appendix C

Forest Management Certification Programs

FOREST MANAGEMENT CERTIFICATION PROGRAMS

Forest Management and Forest Product Certification

In the last 10 years, forest management monitoring has been extended beyond an evaluation of whether best management practices have been implemented according to state or federal specifications for the protection of habitat values and water quality to encompass ecological, social, and economic values. Independent organizations offer certification of forest management and forest products to forestry operations managed according to an internationally accepted set of criteria for sustainable forest management (Crossley, 1996). The principles and criteria of sustainable forestry are general enough to be applicable to tropical, temperate, and boreal forests, but the standards used to certify individual operations are sufficiently site- and region-specific for critical evaluation of individual forests and forestry operations.

In order to be certified, forest management must adhere to principles of resource sustainability, ecosystem maintenance, and economic and socioeconomic viability. Resource sustainability means that harvesting is conducted such that the forest remains productive on a yearly basis. Large scale clearcutting, for instance, such that the forest would have to remain idle and unproductive for many years, would generally not be acceptable. Ecosystem maintenance means that the ecological processes operating in a forest continue to operate without interruption and the forest's biodiversity is maintained. The principle implies that harvesting does not fundamentally alter the nature of the forest. Economic and socioeconomic viability incorporate the two previous principles and imply that forest operations are sufficiently profitable to sustain operations from year to year and that social benefits provided by a forest, such as existence and recreational value, are also maintained over the long term. Economic and socioeconomic viability are incentives for local people to sustain the ecosystem and resources of the forest (Evans, 1996).

Development of guidelines for sustainable forest management began with the International Tropical Timber Organization (ITTO). In 1989, the ITTO Council requested that "best practice" guidelines for sustainable management of natural tropical forests be developed. Soon afterward, global efforts to define and implement "sustainable forest management" began with the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro, Brazil, in 1992. Non-binding "Forest Principles" were endorsed by more than 170 countries attending that conference, though many attending countries hoped that a binding "Forests Convention," similar to those for biodiversity and ozone layer protection, would be endorsed. Since Rio, dozens of fora, groups, and processes have been developed to define and evaluate sustainable forest management.

The movement to evaluate forest management and forest products based on principles of sustainable management is an expansion of focus as more knowledge is gained about forest ecological processes and the impacts, both local and global, of poorly managed forests on ecological systems and, consequently, on human economic and social systems. The expansion is similar to the natural expansion of EPA’s focus in the realm of water pollution control from point sources of pollution to nonpoint sources of pollution to the present focus on watershed processes. Progress gained in overcoming one problem (e.g., point sources of water pollution) highlight the impacts of other problems (e.g., nonpoint sources of water pollution) and the search for overcoming these problems naturally expands to encompass the new problems that are highlighted. As more sources of impact are recognized, the focus must expand to encompass them. Thus, while water pollution control has become focused on watershed processes and activities occurring

within watersheds, forest management is naturally expanding to encompass the processes dependent on the forest (i.e., ecological, social, and economic) and which can be severely limited by poor management.

Two steps are involved in certifying wood products. First, forest management is certified as sustainable according to an evaluation based on accepted principles of sustainable forest management. Various organizations refer to this certification process as forest certification, forest management auditing, or timber certification. Evaluations are always conducted by a third, independent party. The second step is wood-product certification, or forest product labeling. Again, a third party follows the harvested wood through the manufacturing and product development processes, a "chain-of-custody" inspection process, to certify and label the products created from wood harvested from a “sustainable” forestry operation. Both types of certification are currently carried out by both for-profit companies and not-for-profit organizations that are predominantly based in the United States and the United Kingdom. Well known examples are Scientific Certification Systems (SCS) and the Rainforest Alliance's Smart Wood Program (Evans, 1996). These groups are active in the United States and their evaluation processes are described below.

Forest Conservation Program - Scientific Certification Systems (US)

The Forest Conservation Program (FCP) was established by Scientific Certification Systems (SCS) in 1991 as a certification program for sustainable forestry. SCS has certified forests in California (Collins Pine Almanor Forest), Pennsylvania (Collins Pennsylvania Forest), Wisconsin (Menominee Forest), and Mexico.

The FCP uses an evaluation process based on the program elements mentioned above: resource sustainability, ecosystem maintenance, and economic and socioeconomic viability. Each program element is evaluated according to a set of criteria that best represents appropriate benchmarks of sustainable forest management in the region of interest. Timber resource sustainability is evaluated based on criteria relating to how fully-stocked stands are, growing conditions, age and/or size class distribution (even-aged management or uneven-aged management), and whether management allows for sustained yearly harvests and avoids idle years.

The forest ecosystem maintenance element is evaluated based on criteria relating to whether non-timber resource values are a part of management and the extent to which natural ecosystem conditions and processes are altered by harvests. The economic and socioeconomic element is concerned with the overall economic viability of forest operations and the socioeconomic impacts of operations on harvesters and the local community.

The FCP program is designed to provide a quantitative and qualitative approach to certification. Forest evaluations are based on five sources of information. The landowner; investigations of information related to harvesting operations (e.g. timber inventory data, timber management plans, business management plans, and employee records); field sampling (e.g., wildlife surveys); field reviews; and interviews with employees, contractors, and individuals and organizations from the community.

SCS provides two levels of recognition under the FCP program, "Well-managed" and "State-of-the-Art Well-managed." Well-managed forests meet FCP standards for sustainable management as described below. "State-of-the-Art Well-managed" forests rank in the top 10 percent of all forests evaluated under the FCP program.

Evaluations are conducted by an evaluation team that consists of persons with expertise in relevant disciplines, such as forestry, wildlife biology, ecology, and economics. Persons with local or regional expertise are incorporated into evaluation teams and all evaluations are peer reviewed. Periodic monitoring of the forest after initial evaluation, lasting 1 to 3 years, is required as part of certification. Evaluation criteria are selected and weighted to account for regional circumstances.

Each criterion is given a ranking from 1 to 100 based on its perceived importance to sustainable management of the particular forest. Forest management is then scored by the evaluation team according to the chosen criteria. Sixty points on a normalized 100-point scale is the "failure threshold" for each criterion. Forests that receive 60 points or more in all three categories are designated "Well-managed." Forests among the top 10 percent of all SCS-rated forests are given the "State-of-the-Art" designation. The designation given to the forest management operation is also applied to products from wood harvested from the certified forest.

The program is practical and feasible for forest managers to implement because standards of what constitutes good performance and what leads to failure to attain certification for each criterion are clearly described and adaptable for local or regional circumstances. The credibility of the certification process depends largely on the strength of the evaluation team (Evans, 1996).

Smart Wood Program - Rainforest Alliance (US)

The Rainforest Alliance established Smart Wood as the first independent forestry certification program in the world in 1990. The program initially focused on tropical forests but is now used to certify forests of all types. Forests have been certified in Java, Honduras, Mexico, Brazil, and Papua New Guinea. The Smart Wood program is similar to the FCP.

Under the program, long-term management data is used to demonstrate that a forest can be classified as a "sustainable source." Without long-term data but with demonstration that management has a commitment to sustainability, a forest can be classified as "well-managed."

Smart Wood companies are companies that handle Smart Wood-certified products. Category 1 companies sell products made exclusively from Smart Wood forests, and Category 2 companies sell products made from a mix of certified and non-certified sources. Products from Smart Wood companies carry one of these designations.

Smart Wood certification is based on three broad principles:

- All operations maintain ecosystem functions, including watershed stability and conservation of biological resources.
- Planning and implementation incorporate sustained yield production for all forest products.
- Management activities have a positive impact on local communities.

Smart Wood is developing detailed regional standards with the assistance of local specialists (Evans, 1996).

The Society of American Foresters' Certified Forester® Program

The Society of American Foresters (SAF), a nonprofit, scientific, and educational organization, established the Certified Forester® (CF) program in 1994. The term *Certified Forester* is registered with the U.S. Patent and Trademark Office and may only be used by individuals who

meet SAF's certification requirements. The CF program is voluntary, nongovernmental, and open to qualified SAF members and nonmembers. A Certified Forester agrees to abide by current CF program requirements and procedures for certification and recertification; to maintain continuing professional development; and to conduct all forestry practices in a responsible, professional manner consistent with state and federal regulations governing environmental quality and forest management practices.

Through the CF program and other activities, SAF advocates wise stewardship in forest resources management. The CF program may supplement or complement state programs to certify, register, or license foresters; however, it is not a substitute for such programs. The CF program provides a consistent, national credential. Due to varying state requirements, not all registered or licensed foresters are routinely eligible to receive CF status.

Certification constitutes recognition by SAF that, to the best of SAF's knowledge, a Certified Forester meets and adheres to certain minimum standards of academic preparation, professional experience, continuing education, and professionalism. No individual is eligible to receive or to maintain Certified Forester status or recertification unless the individual meets and continues to adhere to all requirements for eligibility. Some of the requirements that must be met by all CF applicants include:

- Standards of Professional Practice:

  Every CF and applicant for CF status agrees to make every effort to periodically review and follow all applicable state and federal regulations governing environmental quality and, specifically, the stewardship and management of forest resources.

  Every CF and applicant for CF status agrees to make every effort to recognize and inform prospective clients or employers of the responsibility to conserve forest resources and to maintain environmental quality in management recommendations.

- Academic Preparation:

  Minimum education: Every CF and applicant for CF status must have earned a professional degree from a SAF-accredited or SAF-candidate curriculum, or a substantially equivalent degree from a non-SAF accredited curriculum. Courses that must have been taken include:

    Forest ecology and biology: A minimum of one course in each of the three broad subject areas of dendrology, forest ecology, and soils.

    Management of forest resources: A minimum of one course in each of the three broad subject areas of forest management, silviculture, and forest protection.

    Forest resources policy and administration: A minimum of one course in two of the three broad subject areas of forest policy, forest economics, and business management.

- Professional Experience:

  Minimum experience: Five (5) years professional forestry related experience are required for certification. Qualifying experience must be within the 10 years prior to the date of application for certification.

- Continuing Education/Professional Development:

Minimum continuing education: All applicants granted CF status must complete 60 contact hours in continuing forestry education prior to recertification every three years.

A complete Certified Forester® application can be obtained from SAF by calling (301) 897-8720, or sending an E-mail request to cillayp@safnet.org.

Sustainable Forestry Initiative (SFI)SM program of the American Forest & Paper Association

The American Forest & Paper Association (AF&PA) is the national trade association of the forest, pulp, and paper, paperboard, and wood products industry. AF&PA represents approximately 138 member companies and licensees controlling 84% of paper production, 50% of solid wood production, and 90% of the industrial timberland in the United States.

AF&AP member companies, as a condition of membership, must commit to conduct their business in accordance with the principles and objectives of the Sustainable Forestry Initiative^{SM} program, instituted in October 1994.

The SFI^{SM} program is a comprehensive system of principles, objectives and performance measures that integrates the perpetual growing and harvesting of trees with the protection of wildlife, plants, soil and water quality. It is based on the premise that responsible environmental practices and sound business practices can be integrated to the benefit of landowners, shareholders, customers and the people they serve.

Professional foresters, conservationists and scientists developed the SFI program. They were inspired by the concept of sustainability that evolved from the 1987 report of the World Commission on Environment and Development and was subsequently adopted by the 1992 Earth Summit in Rio de Janeiro. The original 1994 SFI Principles and Implementation Guidelines were modified and implemented to become the industry "Standard" in 1999. The standards will continue to be updated periodically to reflect new information concerning forest management and social changes.

SFI State Implementation Committees have formed in 32 states to bring industry representatives together with other stakeholders to support logger-training programs and provide outreach to nonindustrial private landowners and opportunities for public involvement.

In a response to public pressure to broaden the SFI program to include nonmember participation in the SFI, a licensee program has been developed. To date, more than 1.5 million acres have been added to the SFI program through licensee agreements, increasing the total forest acres enrolled in the SFI program to 56.5 million acres.

Member companies and licensees are required to submit annual reports to AF&PA describing progress in implementing the SFI program. Since its inception, member companies of AF&PA have invested more than $247 million on research related to wildlife, biodiversity, ecosystem management and the environment. By 1998 more than 30,000 independent loggers and foresters completed training in sustainable forestry with an additional 20,000 completing partial training. In addition, SFI participants and professional loggers have distributed information regarding the SFI program to approximately 242,000 landowners across the country since 1994.

The SFI Standard Objectives are presented below.

SUSTAINABLE FORESTRY:
PRINCIPLES AND IMPLEMENTATION GUIDELINES

- Sustainable Forestry Principles include the Implementation Guidelines
- **IMPLEMENTATION GUIDELINES FOR SF FOR AF&PA MEMBERS' FORESTS:**

OBJECTIVE 1: Broaden the practice of sustainable forestry by employing an array of scientifically, environmentally, and economically sound practices in the growth, harvest, and use of forests.

OBJECTIVE 2: Promptly reforest harvested areas to ensure long-term forest productivity and conservation of forest resources.

OBJECTIVE 3: Protect the water quality in streams, lakes, and other water bodies by establishing riparian protection measures based on soil type, terrain, vegetation, and other applicable factors, and by using EPA-approved best management practices in all forest management operations.

OBJECTIVE 4: Enhance the quality of wildlife habitat by developing and implementing measures that promote habitat diversity and the conservation of plant and animal populations found in forest communities.

OBJECTIVE 5: Minimize the visual impact by designing harvests to blend into the terrain, by restricting clearcut size and/or by using harvest methods, age classes, and judicious placement of harvest units to promote diversity in forest cover.

OBJECTIVE 6: Manage company lands of ecologic, geologic, or historic significance in a manner that accounts for their special qualities.

OBJECTIVE 7: Contribute to biodiversity by enhancing landscape diversity and providing an array of habitats.

OBJECTIVE 8: Continue to improve forest utilization to help ensure the most efficient use of forest resources.

OBJECTIVE 9: Continue the prudent use of forest chemicals to improve forest health and growth while protecting employees, neighbors, the public, and sensitive areas, including stream courses and adjacent lands.

Summary of Certification Initiatives in the United States

Independent certification programs provide a framework of broad principles and core criteria against which forest management can be assessed. Similar to state forestry programs for best management practice monitoring, forest management under the certification programs is evaluated with field sampling, examinations of documents, and interviews with staff and local stakeholders, evaluation teams are inter-disciplinary and knowledgeable of local conditions, and certification is based on scores for identifiable management actions.

- **IMPLEMENTATION GUIDELINES FOR SUSTAINABLE FORESTRY BY AF&PA MEMBERS IN THE PROCUREMENT OF WOOD AND FIBER FROM LOGGERS AND OTHER LANDOWNERS**

  OBJECTIVE 10: Broaden the practice of sustainable forestry by further involving nonindustrial landowners, loggers, consulting foresters and company employees who are active in wood procurement and landowner assistance programs.

- **IMPLEMENTATION GUIDELINES FOR AF&PA MEMBER COMPANIES FOR PUBLIC REPORTING AND INVOLVEMENT IN THE PRACTICE OF SUSTAINABLE FORESTRY**

  OBJECTIVE 11: Publicly report AF&PA members' progress in fulfilling their commitment to sustainable forestry.

  OBJECTIVE 12: Provide opportunities for the public and the forestry community to participate in the AF&PA membership's commitment to sustainable forestry.

While many certification programs are international in scope and focus, the flexibility to tailor the evaluation to local circumstances is built into the process, so the programs have credibility and can be practically implemented on a local level. Furthermore, the framework of the certification process is a practical forest management tool as the internationally accepted criteria on which evaluations are based provide guidance to forest managers for managing operations for sustainability.

The credibility of the process depends on the expertise of the evaluation team. Persons with local expertise must be used for evaluations in order for the certification process to be placed within a local context, and a local context is absolutely necessary because of the complex inclusion of social, economic, and ecological dimensions in the certification process. This complexity can lead to inconsistencies in evaluations and certifications, but some certification programs, notably the Smart Wood Program, are providing regional, national, and international consistency with the development of regional-specific standards.

A separate approach, the Canadian Standards Association Sustainable Forest Management Project (CSA SFM), is based on developing a preferred future condition that meets society's goals, developing an action plan to move toward the future condition, monitoring progress toward achieving that condition, and correcting one's course of action based on monitoring results. An essential element missing from this approach, and an element that makes the FCP and Smart Wood programs so powerful, is a set of clear criteria that define sustainable forest management. In the CSA SFM approach, this definition is left for local stakeholders to define. This leads to a lack of consistency from operation to operation and certification to certification (Evans, 1996).